

What is claimed is:

1. A robot cleaner comprising:
a body;
a driving part driving a plurality of wheels disposed at a lower portion of the
5 body;
a dust suction part formed in the body to draw-in dust from a cleaning surface;
an air cleaning part formed in the body to draw-in dust-laden air from a
cleaning area, clean the air and discharge the cleaned air; and
a controller disposed in the body to control the driving part and the air cleaning
10 part.
2. The robot cleaner as claimed in claim 1, wherein the body is connected
to a body cover forming an exterior of the robot cleaner, and the air cleaning part
comprises:
15 a suction driving source to draw-in the dust-laden air from the cleaning area;
a suction port connected to one side of the body cover;
a discharge port connected to another side of the body cover;
an air cleaning duct in fluid communication with the suction port and the
discharge port; and
20 a plurality of filters disposed in the air cleaning duct to clean the drawn-in air.
3. The robot cleaner as claimed in claim 2, wherein the suction port is
formed in one side of a front portion of the body cover.
- 25 4. The robot cleaner as claimed in claim 2, wherein the suction port is
formed in one side of an upper portion of the body cover.
5. The robot cleaner as claimed in claim 3, wherein the discharge port is
formed in another side of the front portion of the body cover.
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6. The robot cleaner as claimed in claim 4, wherein the discharge port is
formed in another side of a front portion of the body cover.
7. The robot cleaner as claimed in claim 4, wherein the discharge port is
35 formed in another side of the upper portion of the body cover.

8. The robot cleaner as claimed in claim 2, wherein the suction driving source is disposed in the air cleaning duct to draw-in air.

5 9. The robot cleaner as claimed in claim 2, wherein the plurality of filters comprise:

a first filter filtering out relatively large dust particles from the drawn-in air; and

a second filter filtering out minute dust particles and indifferent odors from air.

10 10. A robot cleaning system comprising a driving part for driving a plurality of wheels, a dust suction part for drawing-in dust from a cleaning surface, and a controller for controlling the driving part and the dust suction part, the robot cleaning system further comprising an air cleaning part controlled by the controller, wherein the robot cleaning system performs a cleaning task via the dust suction part and an air cleaning
15 work via the air cleaning part simultaneously or selectively.

11. The robot cleaning system as claimed in claim 10, wherein the air cleaning part comprises a suction driving source for drawing-in dust-laden air from a predetermined cleaning area, a suction port through which air is drawn-in, a discharge
20 port through which cleaned air is discharged, and at least one filter for cleaning the drawn-in air, and when the suction driving source is driven by the controller, air is drawn-in through the suction port, cleaned through the filter, and discharged through the discharge port.

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